ASL-550

Installation Guide

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Included in the Kit

Please review the installation guide before beginning the installation, especially the wiring diagram and the programming options. It is very important that you familiarize yourself with the programming and operation of the system, even if you have already installed an alarm system in the past. There are many great new features that may be overlooked if the manual is not read: You would therefore not maximize the unit's potential. Prior to the installation, make sure that all the hardware components required to install the system are in the box.

❖ The following is a list of the components included in the kit:

- 1 – Control unit
- 2 – 4-button transmitters
- 1 – Siren
- 1 – Plug-in LED
- 1 – Hood pin switch
- 1 – Plug-in shock sensor
- 1 – User guide
- 1 – Installation guide
- 1 – Plug-in valet button

❖ The kit also includes the following harnesses:

- 1 – 2-pin wire harness
- 1 – 5-pin main harness
- 1 – 12-pin principal auxiliary harness
- 1 – 3-pin connector cable

Notice
The manufacturer will accept no responsibility for any electrical damage resulting from improper installation of the product, be that either damage to the vehicle itself or to the Unit. This Unit must be installed by a certified technician using all safety devices supplied. Only registered technicians will be eligible to use the Autostart technical support telephone service. Please review the Installation Guide carefully before beginning any work.

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Installation Points to Remember

- When working on a vehicle always leave a window open.
- **Never** leave the keys in the car. Leave them on a workbench with a window rolled down.
- If possible, remove the courtesy light fuse to prevent battery drain.
- Inspect the vehicle for any body damage or electrical problems.
- Make sure that all the switches and controls operate properly.
- Verify that the vehicle starts and idles properly.
- Never install a control unit where it could interfere with normal operation or obstruct service technicians.
- Do not disconnect the battery on vehicles equipped with air bags and anti-theft radios.
- Always use a grommet when running wires into the engine compartment.
- Never run wires through bare or sharp metal.
- **Always solder and tape all connections.**
- Never ground the control unit to the steering column of the vehicle.
- When you probe /test the wires of a harness, make sure you check the plug-in connector.
- The wires for the air bags are not always identified on the harness (split loom or a yellow tape). However they are always identified on the connector.
- Keep the transceiver away from other types of antennas (GPS/Onstar).
- Make sure all security equipment is installed: The Valet switch, the hood pin and the warning label.

Programmable Features

The unit was designed with flexibility and OEM integration in mind. The system gives installers the output flexibility that every good installer is looking for; this unit can be customized and used for almost every possible application.
With the integration of timed latched and ON / OFF outputs, this unit can single-handedly control virtually any electrical system in the car.

The programmable features are as follows:

1. **Siren or OEM Horn Output**
   - The system can be programmed either to control the OEM horn or to command an external high-power siren.
2. **Siren / Horn Chirp Timing**
   - This feature allows you to configure the duration of the horn/siren chirps generated by the system. The horn/siren chirp duration can be set to any length between 10 ms and 250 ms.
3. **Ignition-Controlled Door Locks**
   - OFF by default. This feature will **LOCK** all the Doors of the vehicle while the Ignition Key is in the **IGNITION ON (RUN)** position and only when all the doors are closed (there is no recurrence of this action). The unit will **UNLOCK** all Doors when the Ignition Key is turned back to the **OFF** position.
   - If **Ignition Lock Only** is selected, the system will only **LOCK** all Doors while the Ignition Key is in the **IGNITION ON (RUN)** position and only when all the doors are closed (there is no recurrence of this action).
   - If option **Ignition Unlock Only** is selected, the system will **UNLOCK** all Doors when the key is turned to the **OFF** position (provided that the Ignition key was in the **IGNITION ON (RUN)** position).
4. **Passive or Active Arming**
   - (Passive with a 1-min. time out by default.) The alarm system on this unit can be set to active mode (in which it will not arm itself automatically) or to passive mode (arms itself automatically) with a 1-minute timeout.
5. **Door Lock Pulse Duration**
   - (¾-sec. lock and ¾-sec. unlock pulses by default.) This system can be programmed to give either 3.5-sec. lock /unlock pulses (this is used to control vacuum door-lock system, for instance on Mercedes) or a single ¾ -sec. lock pulse with a double ¼-sec. unlock pulse (this is used for double-pulse disarm/unlock systems, as in the Maxima, Pathfinder, and Volkswagen…)
6. **Relock**
   - If you unlock the doors with the remote transmitter, but do not open any door or trunk within 60 seconds, the doors will automatically relock.

Harness Description

5-pin harness

WIRE	Wire colour	Function	Description
1	BLACK	(-) CHASSIS GROUND INPUT	This wire must be connected to bare, unpainted metal (the chassis or true body ground). It is preferable that you use a factory ground bolt rather than a self-tapping screw.
2	RED	+12V POWER INPUT	Connect to the +12 V power feed of the vehicle, at the Ignition harness. The source wire should have +12 V without Ignition key in the cylinder.
3	GREY	(–) HOOD SWITCH INPUT	Connect this wire to the installed hood pin switch supplied.
4	YELLOW / BLACK	PARKING LIGHT INPUT	Connect to ground or +12 V for polarity control on pin #5
5	YELLOW	PARKING LIGHT OUTPUT	Connect to parking lights circuit of the vehicle. This wire will give either a positive or a negative output; depending on the polarity of pin #4.

12-pin harness

WIRE	Wire colour	Function	Description
1	PINK	(+) IGINITION INPUT	Connect to the Ignition wire of the vehicle. The source wire should have +12 V with the ignition key in the **IGNITION ON (RUN)** and **CRANK** positions.
2	PURPLE	NA	
3	GREY / Light BLUE	(-) TRUNK INPUT	Connect to the wire that tests ground with trunk open
4	GREY / GREEN	(-) NEGATIVE TRIGGER INPUT	When connected to the wire that provides ground when remote started this input will cause the alarm system to ignore the ignition and shock sense while running by remote start. (Trigger alarm input — selected **by Default**)
5	WHITE / RED	(+) SIREN OUTPUT	This wire will give a positive output when an alarm intrusion has occurred. It will also give positive pulses when remotely locking or unlocking the system (Siren Mode must be selected – selected **by Default**)
6	WHITE / BLUE	(-) HORN OUTPUT	This wire will give a negative output when an alarm intrusion has occurred. It will also give negative pulses when remotely locking or unlocking the system (Horn Mode must be selected)
7	GREY / BLACK	(-) DOOR TRIGGER INPUT	Connect to the wire that tests ground with a door open. **Note**: This wire should monitor all the doors.
8	GREY / RED	(+) DOOR TRIGGER INPUT	Connect to the circuit of the car giving +12 V when a door is opened (usually the dome-light circuit).
9	BLACK / Light BLUE	(–) AUX 1 output	This wire will provide 500mA ground output depending on the configuration of Mode 1, Function 5 (see programming options)
10	BLACK / BROWN	(–) AUX 2 output	This wire will provide 500mA ground output depending on the configuration of Mode 1, Function 4 (see programming options)
11	BLACK / GREEN	(–) AUX 3 output	This wire will provide 500mA ground output depending on the configuration of Mode 1, Function 3 (see programming options)
12	BLACK / PINK	(–) Zone 2 Disable Output (armed output)	This wire will provide a constant 500mA output when the system is armed (locked by remote control). It can be connected to an external starter interrupt relay.

			This wire should be connected to a single pole double-throw relay: this wire will connect to pin 85 on the relay, and pin 86 will be connected to the ignition wire.

3-pin connector – 2-wire harness

Wire	Wire colour	Function	Description
1	BROWN	(–) Unlock output	Programmable 500mA negative output: 1/10-sec., 7/10-sec., 4-sec. or double 1/4-sec. pulse (**ON** 250 ms, **OFF** 500 ms, **ON** 250 ms)
2	No wire	(+) 12V	This pin provides +12V output for INV-200 module
3	GREEN	(–) Lock output	Programmable 500mA negative output: 1/10-sec., 7/10-sec. or 4-sec. pulse

2 purple wires

These wires serve as a starter kill. Cut the factory starter wire (from the vehicle) in half and connect the two cut wires to the 14 AWG purple wires on the module.

How to Flash the Hood Pin

THE INSTALLER …	THE MODULE …
• Press and hold the hood pin for 4 seconds. • Release the hood pin (the parking lights will turn ON). • While the parking lights are on, press the hood pin once more and release immediately. • You now have 20 seconds to select one of the sub-menus.	Parking Lights "ON" "ON" for 20 seconds

Programming a Transmitter

The transmitter does not come pre-programmed and must be programmed after the wiring of the module is completed. The system can retain up to 4 different transmitter codes; if a fifth transmitter is programmed, the code of the first transmitter in memory will be lost. To erase all transmitters from memory, perform a module reset.

Proceed as follows to program a new transmitter:

1. Flash the hood pin (see above) - the parking lights will stay on for up to 20 seconds.
2. Before the lights go out, turn the ignition key to the **ON (RUN)** position
3. When the lights are off. turn the key to the OFF position.
4. Press and hold the or button until the parking lights flash 5 times quickly and the siren chirps twice.
5. The transmitter has been stored in memory.
6. To exit: close the hood.

To program a transmitter on the second vehicle for multi-car operation, you must press the button (instead of or) in step 4 of the transmitter programming procedure.

Entering Programming Options

The system is equipped with two custom programming menus that allow the installer to custom-fit the outputs of the system according to the requirements of each vehicle.

Proceed as follows to enter custom programming:

1. Flash the hood pin switch (see above) — the parking lights will stay on for up to 20 seconds.
2. Before the lights go out, press and hold the valet button and then press one of the following buttons:

..... to access mode 1;

.....to access mode 2.

3. The parking lights will flash and the horn will honk (if programmed) once or twice to confirm entry into a mode.
4. Release the valet button.

Once the desired mode has been selected, the unit will fall (by default) into function #1 of that mode; you can now select the option you want in function 1. Once this option has been chosen, the unit will move on to function 2 of the mode selected, and so on.

for Option 1,

for Option 2,

for Option 3;

for Option 4;

for Option 5.

for Option 6.

Programming Options

MODE 1 ** INDICATES DEFAULT SETTING*

FUNCTION 1 – Ignition-controlled door locks

OPTION 1*	**Ignition lock DISABLED**
OPTION 2	Ignition lock **ENABLED**
OPTION 3	Ignition unlock only
OPTION 4	Ignition lock only

FUNCTION 2 – Door lock / unlock pulse timing

OPTION 1*	**7/10-sec. lock / unlock pulses**
OPTION 2	4-sec. lock / unlock pulses
OPTION 3	7/10-sec. lock pulse and two ¼ -sec. unlock pulses
OPTION 4	1/10-sec. lock / unlock pulses

FUNCTION 3 – AUX 3 Programming – Press the button for 4 seconds (for options 1 through 5)

OPTION 1*	**Constant while button is pressed**
OPTION 2	Toggle ON – Toggle OFF
OPTION 3	60-second pulse
OPTION 4	1-second pulse with unlock pulse and disarm pulse
OPTION 5	1-second pulse with disarm pulse. Once the Trunk is closed, arms pulse after a 5-sec. delay.
OPTION 6	Disarm function (with **UNLOCK** button)

FUNCTION 4 – AUX 2 Programming – Use with button (for options 1 through 4 and Car Finder)

OPTION 1*	**Constant while button is pressed – car finder DISABLED**
OPTION 2	Toggle ON/OFF with 30-second time out or until ignition ON – car finder **DISABLED**
OPTION 3	30-second pulse - car finder **DISABLED**
OPTION 4	60-second pulse - car finder **DISABLED**
OPTION 5	Retain accessory output - car finder **ENABLED**
OPTION 6	Arm output - car finder **ENABLED**

FUNCTION 5 – AUX 1 Programming

OPTION 1*	**Priority door**
OPTION 2	Dome light output for 60 seconds
OPTION 3	Arm output
OPTION 4	Disarm output
OPTION 5	Retain accessory output

MODE 2	* INDICATES DEFAULT SETTING
FUNCTION 1 – Relock	
OPTION 1	**DISABLED**
OPTION 2*	**ENABLED – Relocks all doors 60 seconds after unlocking if neither doors nor trunk are opened**
FUNCTION 2 – Chirps	
OPTION 1	Warning chirps only – Lock confirmation upon 2nd press of **LOCK** button
OPTION 2*	**Chirps ENABLED**
OPTION 3	Chirps **ENABLED** with open-zone notification (siren / horn warning 10 sec. after arming if a door is opened)
OPTION 4	Chirps **DISABLED** – Lock confirmation upon 2nd press of **LOCK** button
FUNCTION 3 – Arming	
OPTION 1	Active arming
OPTION 2*	**Passive arming – 60 seconds rearm. (*two-stage disarm)**
OPTION 3	Passive arming (60 sec.) (*single-stage disarm)
OPTION 4	Active arming with disarm notification
FUNCTION 4 – Ignition monitoring with Siren / Horn Mode	
OPTION 1	Siren mode with ignition monitoring **DISABLED**
OPTION 2*	**Siren mode with ignition monitoring ENABLED**
OPTION 3	Horn mode with ignition monitoring **DISABLED**
OPTION 4	Horn mode with ignition monitoring **ENABLED**
FUNCTION 5 – Ignition and shock monitor under remote start	
OPTION 1	**DISABLED**
OPTION 2*	**ENABLED**

MODE 3	* INDICATES DEFAULT SETTING
FUNCTION 1 – Channel Expander	
OPTION 1	**ENABLED**
OPTION 2*	**DISABLED**

Siren / Horn Chirp Duration Adjustment

The default horn chirp duration is 25 ms. In order to adjust the timing for the Siren, select MODE 2 – FUNCTION 4 – OPTION 1 or 2. To adjust the timings for the Horn, select MODE 2 – FUNCTION 4 – OPTION 3 or 4. The siren/horn chirp duration can be configured by following these steps:

1. Flash the hood pin switch (see on page 4) - the parking lights will stay on for up to 20 seconds.
2. Within 20 sec. press and hold the valet button.
3. Press the button to enter horn chirp duration adjustment – Siren or Horn will chirp 5 times.
4. Proceed as follows to change the horn chirp duration:
   a. Every time you press the button, the system will ***increase*** horn chirp duration by 3 ms. When chirp duration reaches its maximum value (250 ms) the siren / horn will sound 1 long chirp.
   b. Every time you press the button, the system will ***increase*** horn chirp duration by 10 ms. When chirp duration reaches its maximum value (250 ms) the siren / horn will sound 1 long chirp.
   c. Every time you press the button, the system will ***decrease*** the horn chirp duration by 3 ms. When chirp duration reaches its minimum value (10 ms), the siren / horn will sound 1 long chirp.
   d. Every time you press the button, the system will ***decrease*** the horn chirp duration by 10 ms. When chirp duration reaches its minimum value (10 ms), the siren / horn will sound 1 long chirp.
5. To save the settings and exit horn chirp duration adjustment, press the + buttons simultaneously. The siren / horn will sound 3 chirps. Then turn the ignition key to the **OFF** position.

Note: As a rule, you will hear only one short chirp for each adjustment of the horn chirp duration. Nevertheless, you will hear a long chirp (approx. 1 second long) if either the minimum value (10 ms) or maximum value (250 ms) is reached.

Dome Light Delay

When the doors are being closed and the vehicle is armed, the module will check the dome light to detect whether a door has been left open. If the dome light is on, the system will generate three chirps to warn the user that a door has been left open (There is one chirp if Mode 1 – Function 5 – Option 2 is selected)

Retain Accessory Output

Retain Accessory output is activated as soon as key is turned to the ON position. When the key goes from ON to OFF position, the accessory output stays ON and a countdown period of 10 minutes is set. The output is turned OFF after 10 minutes or if a door is opened anytime during the countdown period.

Note: The Accessory Output is also turned off while starting the car.

Zone 2 Disable Output

The unit is equipped with a zone-2 disable output that can be used to immobilize the vehicle when the system is armed. Zone-2 disable operates in addition to the built-in starter kill.
The unit will give a negative output when the system is **armed** (locked by remote); this wire can therefore control an external relay to interrupt the fuel pump or the Ignition.
The starter kill circuit can be configured to passive mode (to arm automatically) with a 1-minute timeout. Otherwise it can be configured to active mode (in which it must be armed by the user).
Note: Installation of a 2nd-zone disable requires an external relay ***(not included!)***.

Multi-car Operation

This allows the user to control two systems with one transmitter. (Both vehicles must be equipped with identical modules)
The remote transmitter of the primary vehicle can control the starter kill system, the door lock and unlock operations of the second vehicle. The remote transmitter of the second vehicle can also operate the primary vehicle.

**To program a transmitter for a second vehicle under multi-car operation, you must press on* *button of the transmitter in step 4 of transmitter programming procedure (see page 4).*

Resetting the Module

The system is equipped with a reset function that allows the installer to erase all transmitter codes and return all programming options to their factory defaults.

To reset the module:

1. Flash the hood pin switch (see on page 4) - the parking lights will stay on for up to 20 seconds.
2. Immediately press and release the valet button **5 times**.
3. The parking lights will flash **8 times** upon reset.

Note: After a reset has been performed, the system will set all options back to their default values *(see the programming page for default values)* and all transmitters will need to be programmed again.

Diagnostics - Parking Lights Flash Rate

FLASHES & CHIRPS	RATE	DESCRIPTION
1	Quick	• Locked by transmitter, system armed (starter kill, alarm) • Car finder
2	Quick	• Unlocked by transmitter, system disarmed (starter kill, alarm) • System has exited valet mode
3	Quick	• Locked by transmitter while a door opened • System has entered valet mode
4	Quick	Doors unlocked by transmitter with an intrusion occurred before unlocking the doors.
5	Quick	New transmitter programmed
8	Quick	Unit reset: Occurs when the unit is reset to factory defaults

Closing Up

Use tie-wraps or screws to properly secure the starter Module and keep the wiring away from any moving parts such as the Parking Brakes or Steering Column Shafts. Mount all switches in good and accessible locations where they do not risk getting kicked or hit accidentally.

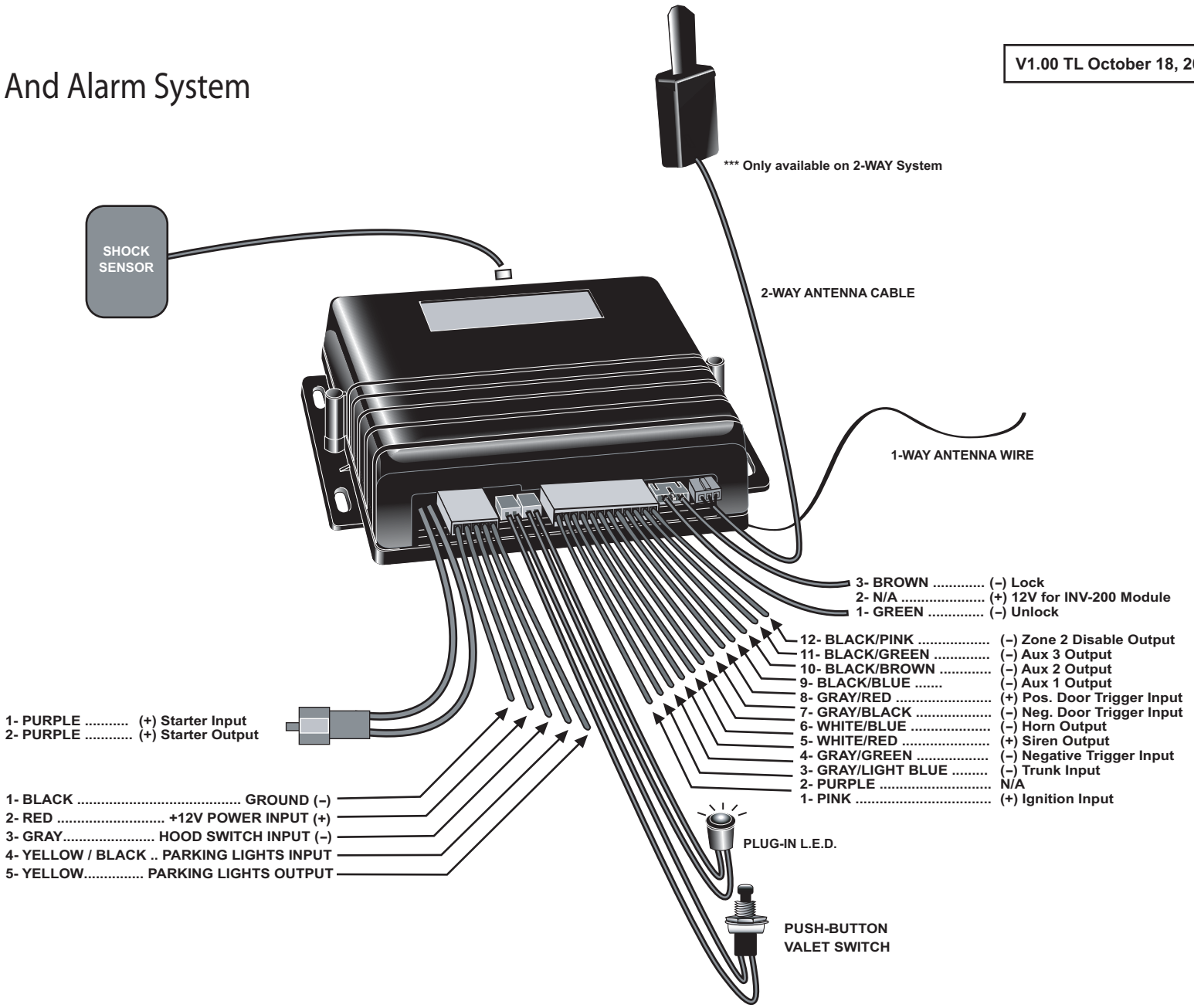
Most comebacks are the result of misunderstandings about how a product works or performs. Take the time to properly explain all functions and features to the customers before they leave the premises. Doing this will save time and money.

Always make all your connections before plugging in the Module, and be sure to test all functions properly before closing up the installation.

WIRING SCHEMATIC

Keyless Entry And Alarm System

V1.00 TL October 18, 2005


*** Only available on 2-WAY System
SHOCK SENSOR
2-WAY ANTENNA CABLE
1-WAY ANTENNA WIRE
3- BROWN ..... (–) Lock
2- N/A ..... (+) 12V for INV-200 Module
1- GREEN ..... (–) Unlock
12- BLACK/PINK ..... (–) Zone 2 Disable Output
11- BLACK/GREEN ..... (–) Aux 3 Output
10- BLACK/BROWN ..... (–) Aux 2 Output
9- BLACK/BLUE ..... (–) Aux 1 Output
8- GRAY/RED ..... (+) Pos. Door Trigger Input
7- GRAY/BLACK ..... (–) Neg. Door Trigger Input
6- WHITE/BLUE ..... (–) Horn Output
5- WHITE/RED ..... (+) Siren Output
4- GRAY/GREEN ..... (–) Negative Trigger Input
3- GRAY/LIGHT BLUE ..... (–) Trunk Input
2- PURPLE ..... N/A
1- PINK ..... (+) Ignition Input
1- PURPLE ..... (+) Starter Input
2- PURPLE ..... (+) Starter Output
1- BLACK ..... GROUND (–)
2- RED ..... +12V POWER INPUT (+)
3- GRAY..... HOOD SWITCH INPUT (–)
4- YELLOW / BLACK .. PARKING LIGHTS INPUT
5- YELLOW..... PARKING LIGHTS OUTPUT
PLUG-IN L.E.D.
PUSH-BUTTON VALET SWITCH